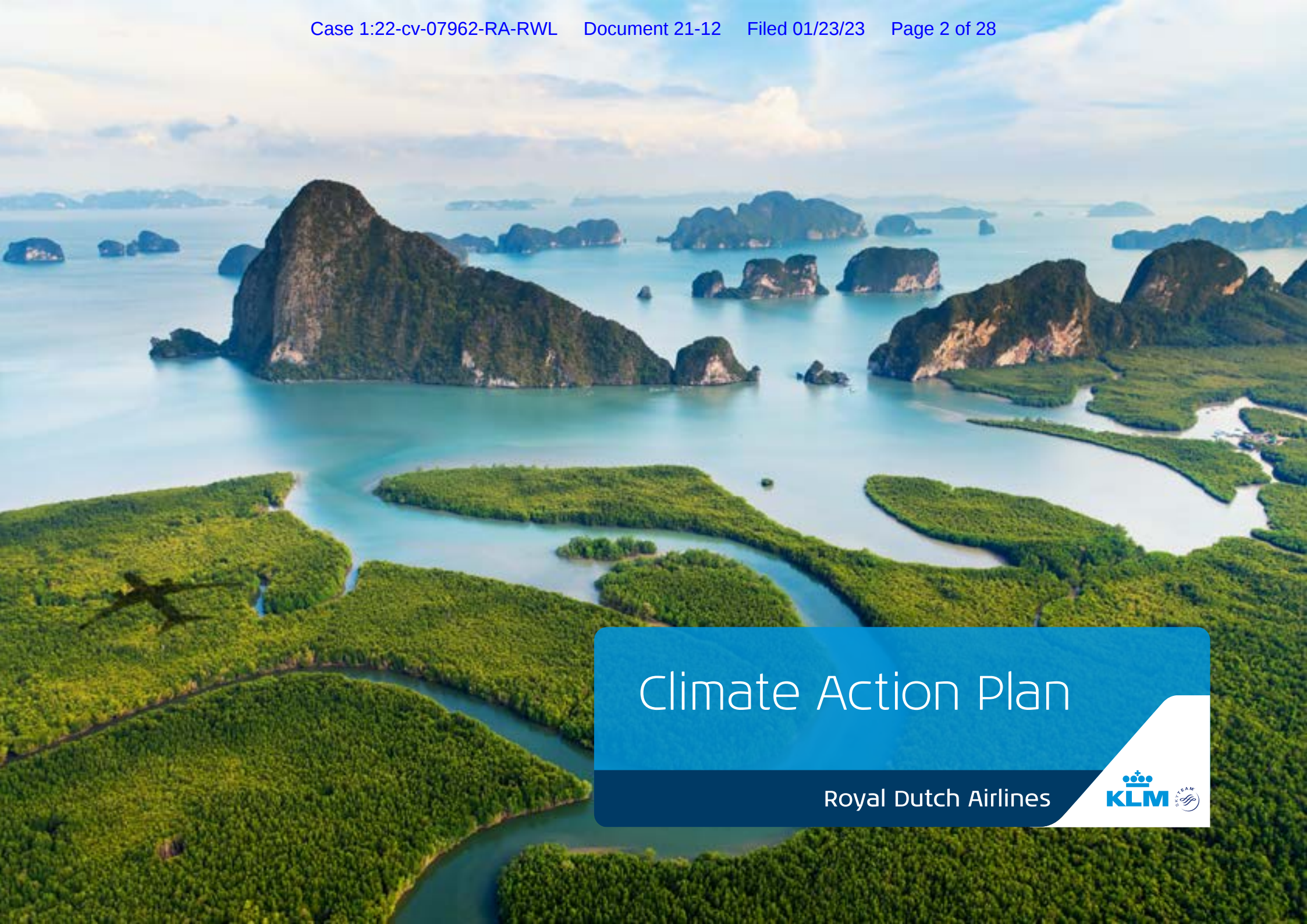
EXHIBIT 9


Climate Action Plan
Royal Dutch Airlines
KLM

Colophon

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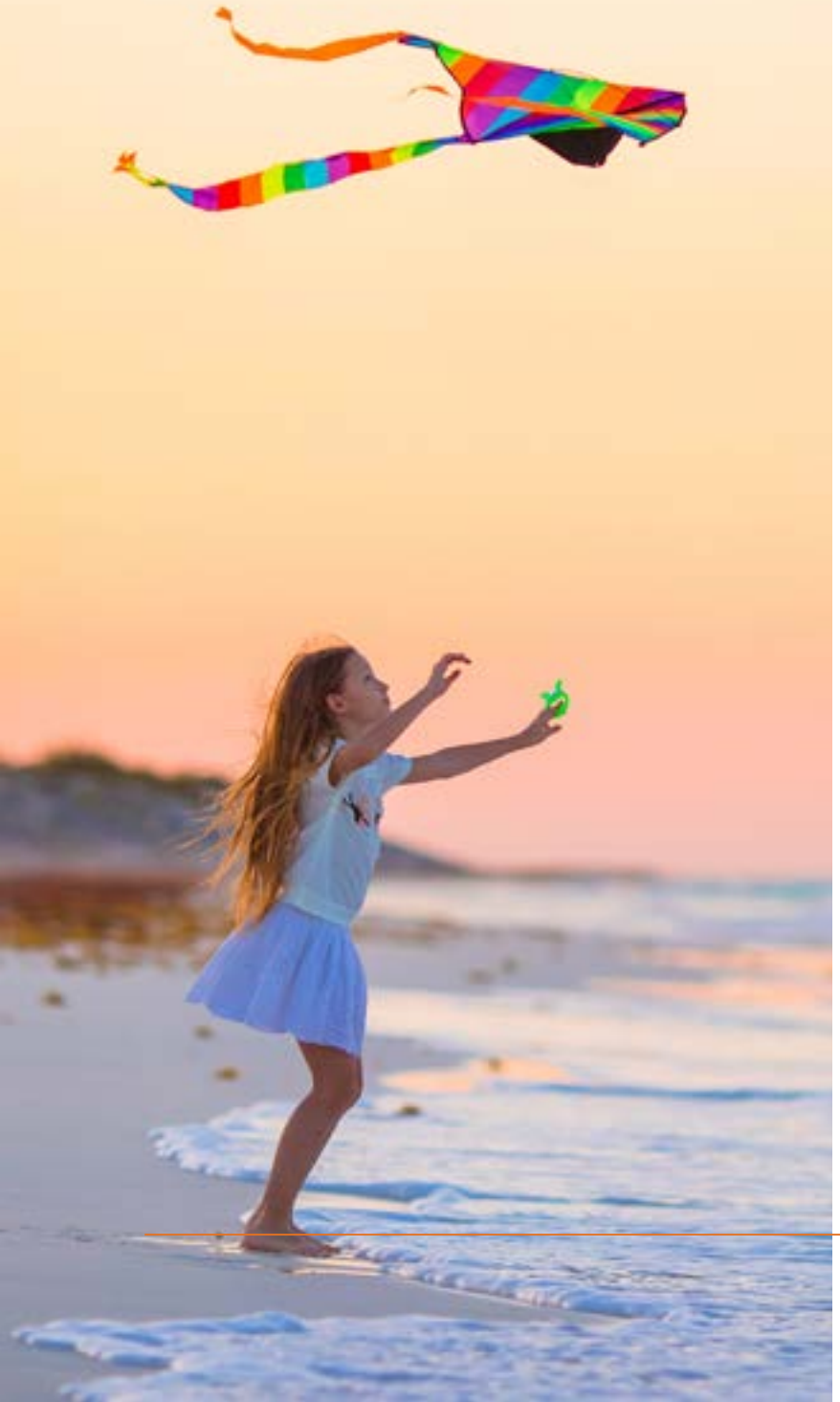
For any questions regarding this document, please contact us at sustainability@klm.com

Head Office
Amsterdamseweg 55
1182 GP Amstelveen
the Netherlands

Postal address
P.O. Box 7700
1117 ZL Schiphol
the Netherlands

Telephone: +31 20 649 9123
Internet: www.klm.com

Registered under number 33014286 in the Trade Register of the Chamber of Commerce and Industry Amsterdam, the Netherlands



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List of abbreviations

A4E – Airlines for Europe
ATAG – Air Transport Action Group
ATM – Air Traffic Management
CAGR – Compound Annual Growth Rate
CDP – Carbon Disclosure Project
CORSIA – Carbon Offsetting and Reduction Scheme for International Aviation
CO2 – Carbon dioxide
CSR – Corporate social responsibility
CST – Clean Skies for Tomorrow
E&M – Engineering & Maintenance
ERF – Effective radiative forcing
EU ETS – European Union Emission Trading Scheme
GHG – Greenhouse gas
GHGP – Greenhouse Gas Protocol
HV – Transavia
IAM – Integrated Assessment Model
IATA – International Air Transport Association
ICAO – International Civil Aviation Organization
IEA – International Energy Agency
MBM – Market-based measures
MP – Martin Air
IFS – Inflight Services
IPCC – Intergovernmental Panel on Climate Change
ISSR – Ice supersaturated regions
KCS – KLM Catering Services
KLC – KLM Cityhopper
KLM Group – KLM, KLC, HV, MP
NDC – Nationally Determined Contribution
nvPM – non-volatile Particulate Matter
ppkm – per passenger-kilometre
RTK – Revenue Ton Kilometre
SAF – Sustainable Aviation Fuel
SBTi – Science Based Target initiative
SDA – Sectoral Decarbonisation Approach
SES – Single European Sky
SESAR – Single European Sky ATM Research
TTW – Tank-to-Wake
WRI – World Resources Institute
WTT – Well-to-Tank
WTW – Well-to-Wake
WWF – World Wide Fund for Nature

Introduction

Sustainability has had a place in KLM's strategy for a long time. KLM has worked on reducing its negative impact actively since the 1990's. We have had a front-runner position in the industry. However, over the past years' climate research has become more pressing. There are limits to our planet, and immediate action is needed if we want to continue to operate inside these limits. For us, it became clear that a strategy on sustainability is not sufficient, it needs to be in the core of our corporate strategy.

Therefore, this year we renewed our purpose and our strategy. Our purpose is defined as 'pioneering sustainable aviation'. We do not merely want to transform our own company into a sustainable one, but we want to use our position and take a leading role in the aviation industry. One of the 3 pillars in our strategy is 'transforming into a net positive company'. We see this as one of the cornerstones of the company's future. Transforming into a net positive company goes beyond reducing our climate impact. It also includes a broader perspective on sustainability, by operating inside all the limits of our planet, and that is what KLM stands for.

This Climate Action Plan is an outcome of our new purpose and strategy. This plan explains the context the aviation industry operates in; it presents KLM's climate actions to date; and it shows the need to accelerate, demonstrated by the recent commitment to the Science Based Targets initiative (SBTi) as its targeted pathway to reach the climate targets of Paris.

With our SBTi commitment in November 2021 we have a clear ambition towards 2030 on our way to meet the Paris Agreement goals in 2050. This has allowed us to update our CO_2 reduction targets, which now guide our decarbonisation process. It is also a start of a translation of our renewed strategy into tangible actions. This phase in the timeline has just commenced, and till the end of the year is thus dedicated to practical interpretation of the targets. This is updated as we progress, as we learn, as we see technological developments come to market and as we see the world around us change. KLM will engage all departments to work together to translate our new climate ambitions into concrete actions to ensure delivery against the goals, on top of the subset of measures already in place.

Context

This section will set the context of the aviation industry and the environmental challenges the industry faces. First, regulation and legislation that the industry has to comply with is introduced, followed by industry commitments and alliances. Next, the necessary decarbonisation pathway for the industry is elaborated upon, after which the challenges that come with this roadmap are explained.

According to the International Energy Agency (IEA), pre-Covid the worldwide aviation sector accounted for 2-3% of anthropogenic CO_2 emissions[1], of which approximately one fifth of the emissions were caused by flights departing from Europe. Despite the Covid-19 public health crisis, the forecasts for global air traffic growth in the coming years could see this proportion increase. Taking other greenhouse gases and warming effects into account, including non-CO_2 effects, the impact of aviation to global warming is more than two times as large[2]. A part of the aviation sector sees and acknowledges its responsibility for reducing these emissions.

The aviation industry is considered a "hard to abate" sector, due to a lack of alternatives and a rise in air mobility demand. The general struggle in achieving sustainability is driven by limited zero-emission technology readily available, which will only have meaningful contributions after 2030, and specific regulations affecting the worldwide level playing field. However, this does not dismiss us from taking our responsibility. Therefore, in the meantime, a mix of measures is necessary to achieve emission reductions in an efficient and effective manner. We want to take this responsibility to push boundaries and to find adequate solutions.

I. Regulation & legislation

International

In 2015 the Paris Agreement was adopted, which agreed on limiting global warming to well-below 2°C while aiming to limiting the increase to 1.5°C. However international aviation (like shipping) falls out of the scope of Nationally Determined Contributions (NDC), as the supervision of decarbonisation instead is entrusted to the International Civil Aviation Organisation (ICAO), a United Nations agency, who is taking actions to reduce the sectors' impacts. The aviation industry is the first economic sector to have set ambitious long-term reduction targets and to have adopted a worldwide carbon offsetting system (CORSIA) within the framework of the ICAO to guarantee carbon-neutral growth for global air transportation from the 2020 baseline. In 2020, due to the impact of the public health crisis on aviation, the baseline for the pilot phase was changed to 2019 rather than an average of 2019 and 2020. The implementation of CORSIA offsetting has begun with a first phase from 2021 to 2026. 88 States have volunteered to contribute, under which one is the Netherlands, representing around 77% of international aviation activity.

European Union

At the end of 2019, the European Commission announced the European Green Deal, aiming at climate neutrality in Europe by 2050. To reach this goal, an intermediate target of 55% reduction in greenhouse gas emissions by 2030 compared to 2019 was set. To achieve the intermediate target, the European Commission issued a package of policy proposals entitled 'Fit for 55'. This legislative package comprises various measures to ensure realisation of the 2030 targets, addressing multiple

[1] IEA, 2021.
[2] Destination 2050, NLR-SEO, 2021.

sectors including aviation. The most important legislative changes in EU climate policy impacting aviation include the strengthening of EU Emission Trading Scheme (ETS) for aviation through a tightening of the cap and the full phase out of free allocation by 2027 and the ReFuelEU Aviation proposal, obliging fuel suppliers to blend increasing levels of Sustainable Aviation Fuels (SAF) in jet fuel taken on-board at EU airports. Furthermore, a recast of the Energy Taxation Directive introducing tax on kerosene and a revision of the Renewable Energy Directive stipulating a GHG intensity target for transport have an additional impact.

The Netherlands

In line with the Paris Agreement, the Dutch government has also developed their NDC in the form of a climate plan, in which the aviation sector plays a role. The climate agreement has two main goals: a 49% CO_2 reduction in 2030 compared to 1990 and 95% reduction in 2050. The specific goal setting for aviation is determined in the 'Luchtvaartnota 2020-2050'. Based on the 'Akkoord Duurzame Luchtvaart', the aim is that CO_2 emissions of aviation from the Netherlands in 2030 are the same as in 2005, the emissions in 2050 have halved compared to 2005, and in 2070 net-zero is achieved. KLM has committed itself to this agreement, and additionally is an active member in the 'Duurzame Luchtvaart Tafel'.

II. Industry commitments

In 2009, the International Air Transport Association (IATA) set worldwide targets for reducing the CO_2 emissions from air transportation. While international aviation is not included in the Paris Climate Agreement, the industry's efforts respond to its target of limiting the global temperature increase to below 2°C. In 2021, IATA revised these targets by committing to net-zero carbon emissions by 2050. In 2016, the European airline industry joined forces through the Airlines for Europe (A4E), representing 70% of the European air traffic[3]. The alliance is a combination of airlines as well as global manufacturers, who aim to together transform to a sustainable and competitive industry. They have committed to achieve the goal of net-zero European aviation. Furthermore, the Air Transport Action Group (ATAG) is a coalition of aviation industry experts focusing on sustainable development issues. They have also announced a pledge to net-zero in 2050 for global civil aviation operations[4].

III. Decarbonisation pathway for the industry

In 2020, trade organisations of the European aviation industry jointly designed a decarbonisation roadmap for the industry to achieve net-zero CO_2 emissions in 2050 from all flights departing the EU, presented in the figure below. The report identifies four main measures essential in the possible pathway to 2050: new technologies; improved operations, sustainable aviation fuels; and economic measures. Additionally, ATAG developed the Waypoint 2050[5], identifying the same four measures necessary to transform the aviation sector on an international level. In contrast to Destination 2050, three scenarios are presented with different contributions to emission reductions of the four applicable measures.

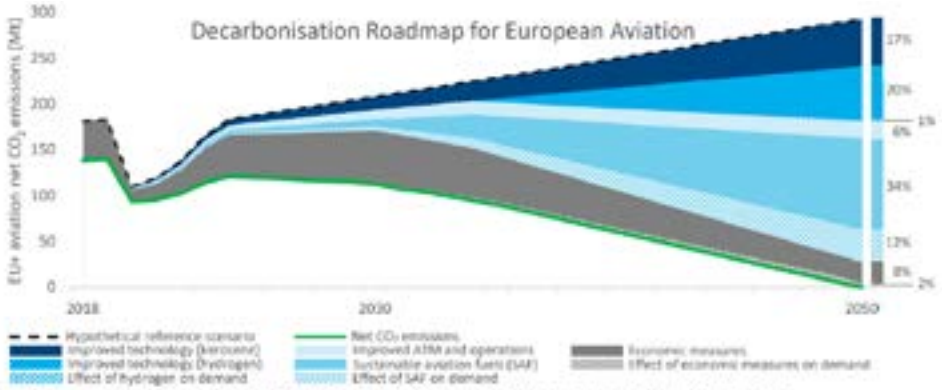


Figure 1. "Decarbonisation pathway presented for the European aviation sector in the Destination 2050 report.[6]"

[3] Airlines for Europe, 2022.
[4] ATAG, 2022.
[5] Waypoint 2050, ATAG, 2021.
[6] Destination 2050, NLR-SEO, 2021.

New technologies

As seen in the graph, both improvements and new developments in aircraft and engine 1) efficiency and 2) technology, and thus the subsequent replacement of current aircrafts, contributes the largest share of emission reductions. The continued fleet renewal has the possibility to reduce emissions up to 2040 by becoming more fuel efficient, during which the technology for hydrogen-powered as well as hybrid-electric aircrafts has the possibility to become market ready by 2035[7].

Improvements in operations

Both air traffic management (ATM) and aircraft operations can significantly reduce CO_2 emissions in the short to medium term, as more efficient routes and operations require less fuel and are relatively easy to implement quickly. Operational gains could lead up to a CO_2 emission reduction of 10%. These benefits will continue yielding impacts after 2030. Activities to achieve this include digitalising the ATM system and CO_2 optimised routing, as well as decarbonising ground operations to for example electric towing or taxiing solutions. For these solutions to be effectively implemented, joint efforts and collaboration between industry and government is required, as many actors are involved to ensure safe and efficient air transport.

Sustainable aviation fuels

The use of Sustainable Aviation Fuel (SAF) is one of the most impactful measures for reducing the CO_2 emissions from aviation. They enable up to 80-100% reduction over the entire life cycle for the most innovative technologies, but this potential currently lies at 75-80%. However, now SAF is still scarcely available, meaning that essential advances are necessary to scale up and commercialise SAF deployment through activities including R&D and pilots. From an energy independence perspective, Europe should focus on feedstock/technology combinations which do not rely on imports from non-EU countries and/or other continents.

Economic measures

Economic measures play an important role in the short-term of the pathway, comprising mechanisms as the EU ETS and CORSIA scheme, which trigger the acceleration towards emissions reduction. These measures have the possibility to bridge the gap while new technologies and SAF are being developed and become available, after which the need for economic measures will decline. Remaining emissions can be balanced by carbon removal projects.

IV. Challenges in decarbonising the industry

As briefly mentioned, the aviation industry is a hard to abate sector when it comes to emission reductions, as alternatives are hard to find and demand keeps rising[8]. The most substantial emission reduction measures (e.g. new generations of aircrafts, increasing uptake of SAF) are not yet available and take time to materialise. These measures are essential foundations for post-2030 reductions. Up to 2030, measures including fleet renewal, improvements in ATM and aircraft operations and reliance on compensation, creating a patchwork of measures, are essential to achieve international, EU and company-level targets.

Firstly, technical barriers limit in the decarbonisation due to the lack of sustainable technologies present. For one, the aviation industry has already seen a remarkable improvement in efficiency, showing an 85% improvement in fuel efficiency since the first jet engines in the 1950s and a 55% improvement in operational efficiency since 1990. Thus, the gains to be made in efficiency through evolutionary development are becoming

[7] Airbus, 2022.
[8] Demand_Signal_Report, World Economic Forum, 2021.

harder and harder to achieve. Therefore, there is a need for zero-emission alternatives, including technologies such as hybrid-electric as well as hydrogen aircrafts. As presented above, these are only expected to be substantially developed around 2035. Thus, as the technology is currently not available and is not going to be for quite some time, fleet renewal is the measure the airline industry is most dependent on.

A shorter-term alternative is the use of SAF, which will also contribute at least a 34% reduction in emissions in the industry pathway. However, despite different technological options being available its production is still in its early stages, and therefore the availability is extremely low. Additionally, the price of SAF is currently still at four times the price of regular jet-fuel. Likewise, the actual sustainability of the fuel needs to be taken into account, as the feedstock used may be in competition with food production, lead to deforestation, or causes indirect land use change, thus limiting the options for sustainable feedstock.

However, despite the significant decrease in worldwide air traffic caused by the pandemic, aviation is expected to rebound and continue to grow in the coming decades, as is estimated by IATA[9]. It should be noted that aviation provides wide-range connectivity, and has therefore become an indispensable part of society and in people's need for mobility[10]. With the continuous development of newly industrializing countries the aviation industry anticipates aviation will only increase due to a rise in global mobility and modern conveniences such as next-day deliveries.

[9] Covid-19: An Almost Full Recovery of Air Travel in Prospect, IATA, 2021.
[10] Destination 2050, NLR-SEO, 2021.

Climate strategy at KLM

This chapter will outline KLM's Climate Strategy. First, we will elaborate what KLM has done thus far. Following, we will introduce our renewed climate strategy, which elaborates on the concrete current and future actions that are and will be taken by KLM to reduce our climate impact.

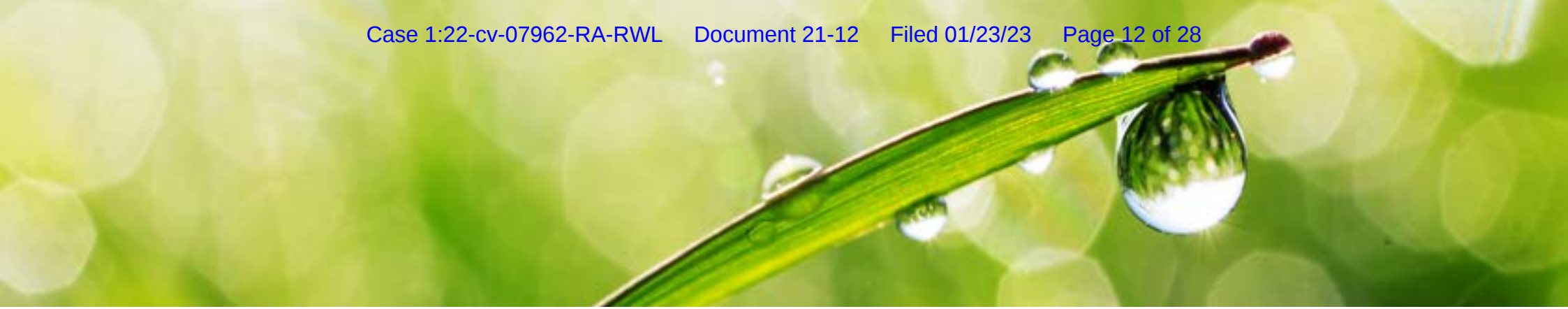
1. Looking back: What have we done so far?

KLM's climate actions date back to the 1990's, when we first started engaging in environmental reporting and addressing noise issues. This has developed over the years, where in the beginning 2000s KLM began publishing annual Corporate Social Responsibility (CSR) reports and became ISO14001 certified, and later in 2006 really began to act from a sense of responsibility and focused on sustainable innovation. In 2012, long-term sustainability visions were determined for KLM, further integrating CSR in the business and its operations. This timeline portrays a shift in sustainability thinking within KLM, moving from being rather inactive and reactive towards being pro-active and adopting a leading role.

From mid 2000s, KLM has been active with regards to sustainable innovation, including aiding in the development of new aircrafts, particularly focusing on the investment in and development of biofuels for the aviation industry. Several projects were implemented to enhance the industry on this front. In 2007, KLM partnered with WWF, aiming for CO_2 neutral growth by enhancing the use and research into biofuels. Furthermore, in 2012 KLM introduced a BioFuel Program for corporate clients, in which enables companies to go on business flights that partially fly on sustainable biofuels. For customers, the CO_2ZERO program was introduced, which allows them to compensate for the impacts of their flight.

Figure 2. "Track record sustainability KLM."

Along with the long-term sustainability visions determined in 2012, a twofold set of CO_2 reduction targets were formed for 2020. Firstly, KLM set itself a target to reduce its CO_2 emissions per passenger kilometre (ppkm) by 20% in 2020 (relative to 2009 level), which was achieved in 2019 with a reduction of 21.6%. Measures in the strategy to achieve this target included fleet renewal, operational measures, uptake of biofuels, and using offsetting as a backup option. Secondly, KLM has set itself a 20% improvement in ground operation energy efficiency by 2020 (relative



to the 2011 level), by optimizing energy consumption and increasing the use of renewable energies. This was target was achieved as well.

The year 2019 marked an important year in KLM's sustainability journey, introducing a new set of goals and targets, along with the Fly Responsibly campaign. KLM's sustainability targets for 2030 included the ambitions below:

1. Decrease of 15% in absolute CO_2 emissions (scope 1) compared to 2005;
2. Decrease of 50% CO_2 emissions (scope 1) per passenger kilometre compared to 2005;
   a. Incl. market-based measures and offsetting
3. Zero emissions from ground operations;
4. Sustainable Aviation Fuel:
   a. 14% of the fuel KLM uses in the Netherlands must be SAF;
   b. KLM and its partners in the Clean Skies for Tomorrow coalition announced their ambition to achieve a worldwide SAF proportion of 10% in 2030.

Greenhouse gas emissions: Scopes 1, 2 and 3

Most of the GHG emissions are generated by the KLM group's (KLM, KLC, HV, MP) direct, scope 1, activities (±85%), and secondly by indirect, scope 3, emissions (±15%). Furthermore, the flight operations represent 99.7% of the total direct emissions, and the ground operations (testing bench, runway vehicles, etc.) represent 0.3%.

The ground operations, like the aircraft maintenance and tertiary activities, also generate indirect greenhouse gas emissions (scope 2), through energy consumption in buildings (electricity and air conditioning). KLM implements measures to reduce ground energy consumption.

The indirect scope 3 GHG emissions mostly come from the upstream phase (extraction, production, distribution, etc.) in aviation kerosene production and carbon emissions from runway vehicles and equipment. The other scope 3 components are the purchasing of goods and services, passenger road travel to and from airports, and employee commuting.

Every year, KLM reports of its scope 1 and 2 CO_2 emissions, and the scope 3 emissions resulting from the upstream phase in aviation kerosene production (according to internal estimates, these emissions represent approximately half of the total scope 3 emissions).

		Unit	2019	2020	2021
Greenhouse gas emissions (scope 1 GHG protocol)	Conventional Aviation Fuel	ktons CO_2	12,033	6,680	7,400
	CO_2 savings from SAF	ktons CO_2	n.a.	0.5	9.8
	Ground Operations	ktons CO_2	39.4	31.3	30
Greenhouse gas emissions (scope 2 GHG protocol)	Electricity	ktons CO_2	0	0	0
Greenhouse gas emissions (scope 3 GHG protocol)	Upstream emissions from fuel production	ktons CO_2	2,523	1,448	1,594
Total carbon Emissions		ktons CO_2	14,590	8.159	8,994
Offsetting	Mandatory carbon offsets	ktons CO_2 credits	1,610	111	558
	Voluntary carbon offsets	ktons CO_2 credits	24	15	12
	Customers' carbon offsets	ktons CO_2 credits	98	51	102

Table 1. "Greenhouse Gas Emissions KLM group scope 1, 2 and 3."[11]

[11] Universal Registration Document, 2022.

The graph in figure 3 below shows the reduction in absolute CO_2 emissions since 2005. This portrays an incremental decrease in emissions, with a huge drop in 2020 and 2021 due to the pandemic. Figure 4 shows the development of emissions ppkm over time. This figure shows a decrease, illustrating KLM's increasing efficiency over time. Both figures portray only a decrease and efficiency in scope 1 emissions, thus direct emissions from flight operations.

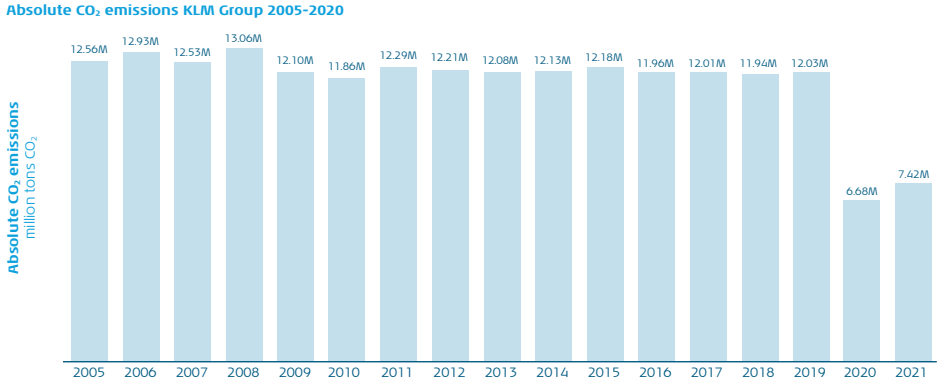


Figure 3. "Absolute CO_2 scope 1 emissions KLM Group 2005-2021."

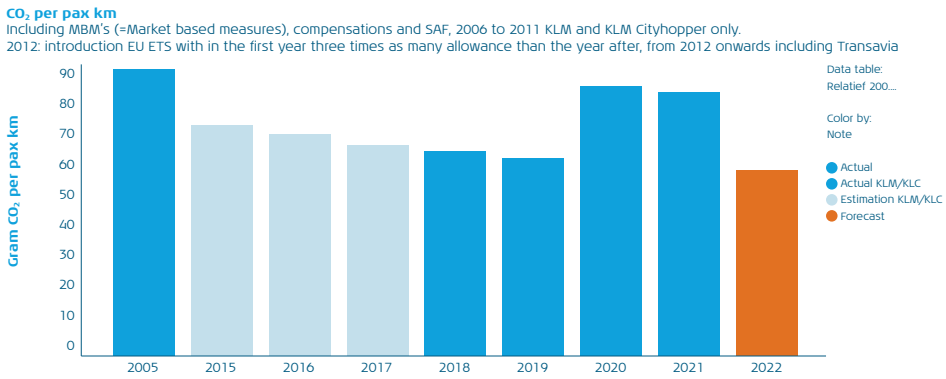


Figure 4. "CO_2 scope 1 emissions per passenger kilometre (incl. market-based measures) KLM & KLC (from 2021 incl. Transavia 2005-2022) (2015-2017 are estimations)."

2. Climate Ambitions

Over the past years KLM has been working on her own climate ambitions and reporting its emissions. As explained before, we have been and are active at a national, European and global level to cooperate, innovate and define agreements. However, we acknowledge that we should go beyond ambitions that we see as feasible, and work towards ambitions that are needed to operate inside the limits of our planet. Therefore, we committed ourselves to the Science Based Target initiative (SBTi) in November 2021 and updated our emissions reduction targets accordingly in April 2022. We are awaiting validation of our targets from SBTi, which is expected in the second half of 2022. In table 2 below, KLM's current CO_2 reduction target is presented, portraying -30% relative reduction, and based on this a forecast of -12% absolute. These are based on the scientific guidelines and calculations for the aviation sector specifically from the SBTi, and thus creates a roadmap to reach the Paris objectives.

CO_2e reduction targets KLM group	**CO_2 reduction in 2030 compared to 2019** (scope 1 & 3)
Intensity target (ppkm)	-30%
Projected absolute reduction (based on SBT forecasts)	-12%

Table 2. "Overview CO_2 Reduction Targets KLM Group."

Three aspects of these targets are important to note. Firstly, these current targets cover KLM's scope 1 and 3 jet fuel emissions, Well-to-Wake as named by SBTi. These targets therefore cover almost all emissions from our flight operations. Secondly, following the SBTi guidelines, to achieve these, market-based measures and offsetting are

both not counted towards the overall CO_2 reduction. Thirdly, industry-wide growth is taken into account in the forecasts. These aspects are notably different from our previous reduction ambitions set in 2019, as well as the fact that the base year is different, thus making them hard to compare. Furthermore, after bringing our ambitions in line with science according to the SBTi guidelines, our intensity target has been tightened due to the previous mentioned calculation differences. The resulting absolute reduction projection is quite similar to our previous ambition when, showing that in 2019 KLM's ambitions were already well on its way to be science based. The SBTi methodology and following results are discussed in the first two sections of this chapter.
To attain these targets and reduce our carbon footprint by activating all the available levers, KLM has established a Climate Action Plan. This plan is composed of several main mitigating priorities for which targets have been identified and action plans implemented. An elaboration on the implemented actions, as well as potential measures under analysis and our next steps are presented in the third and fourth sections of this chapter.

Figure 5 below portrays the SBTi process that KLM has gone through in the past months. As can be seen, currently we are in the process of setting up an internal track within our strategy to translate the overarching CO_2 reduction targets across the different divisions of KLM group. That being so, several potential measures introduced in the next sections are still under analysis.

I. Science Based Targets

KLM's most recent CO_2 reduction targets are based on the guidelines of the Science Based Target initiative. This section introduces the initiative and what it entails, as well as how it applies to the aviation sector and the specific methods used.

The initiative
The SBTi is a partnership between four NGOs and knowledge institutions: the Carbon Disclosure Project (CDP), World Resources Institute (WRI),

Figure 5. "SBTi Timeline KLM Group."

UN Global Compact and World Wide Fund for Nature (WWF). SBTi helps private-sector organisations to set climate targets in line with the Paris Climate Agreement, based on what science tells them is necessary to honour the agreement, and to give aid in the development of concrete short and medium-term targets. These guidelines are based on scientific data and assumptions from the IEA and latest IPCC report and are developed in collaboration with industry experts.

To keep the sector's decarbonisation pathway aligned with the Paris Agreement goals, the SBTi introduced guidelines specific to aviation for target development in August 2021 for a well below 2°C. By establishing this SBTi pathway, we can further reduce our CO_2 emissions systematically in a transparent manner. Air France-KLM, Air France and KLM have each signed a letter of intent in which the group declares its commitment to cooperating with the SBTi. Until the targets for KLM are validated, we will commence to work on the SBTi reduction pathway.

How do Science Based Targets work for aviation?

The sectoral decarbonisation approach (SDA) is a target setting methodology developed by the SBTi allowing companies to set science based GHG targets aligned with a well-below 2°C scenario. Essentially, the SDA attempts to address a fundamental tension in corporate target setting: that rapid decarbonisation is incongruent with industry growth. For commercial aviation, this uncertainty could be framed as: "How much would the aviation sector's average carbon intensity need to decrease in order to achieve Paris aligned decarbonisation goals whilst also allowing for projected industry growth?". The SDA answers this question by helping companies model physical intensity GHG reduction targets that align with the sector-specific pathway of an underlying climate scenario. The rate of decarbonisation needed to meet the Paris goals is defined by scientific findings from Integrated Assessment Models (IAMs). These models detail how a global carbon budget should be spent over time and divided by sector based on several factors including: sector mitigation potential, socio-economic drivers, regional factors and technological availability. The methodology for target calculations is provided by SBTi through an aviation sector tool, which can be found on their website[12]. For the KLM specific calculations, all stakeholders have the possibility and are welcome to review our input into this model, and to assess our calculation in full detail.

In our targets we include scope 1 and 3, but scope 2 is excluded. Best practice accounting follows guidance from the Greenhouse Gas Protocol (GHGP), which structures emissions from Kyoto gases according to three scopes: scope 1 representing direct emissions from operations (for jet fuel this is Tank-to-Wake [TTW] emissions); scope 2 representing electricity consumed from operations (limited relevance for aviation); and scope 3 representing all emissions from the upstream and downstream supply chain (for jet fuel this is Well-to-Tank [WTT] emissions). The target setting for aviation is based on Well-to-Wake emissions (WTW), thus the full value chain emissions from jet fuel as seen in the visualisation below. As scope 2 emissions are limited for aviation, this is not considered in aviation target setting.

Currently, a 1.5°C pathway is currently under development for the aviation sector by the SBTi, which will be integrated into the SBTi Aviation

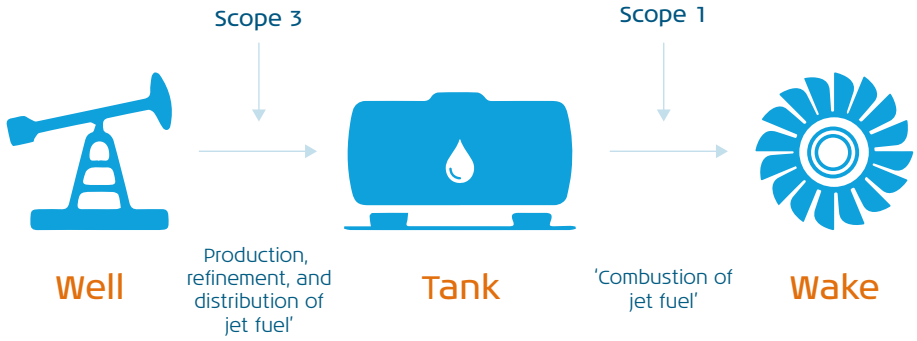


Figure 6. "Visualisation Well-to-Wake."

[12] SBTi tool Aviation, 2021.

Guidance and accompanying target-setting tool. Once the pathway is updated, we will update our own targets in line with SBTi guidance accordingly to 1.5°C. Our current projections are based on a well below 2°C scenario.

Offsetting & Market-Based Measures

On international and EU level, the market-based measures (MBM's) EU ETS and CORSIA, have an impact on KLM's CO_2 reduction. For the implementation of CORSIA, the Air France – KLM Group contributed to the calculation of the CO_2 emission baseline data as of January 1, 2019.

Until recently, these MBM's and offsetting were counted towards KLM's CO_2 reductions. According to the SBTi sector guidelines, these mechanisms cannot be included in the CO_2 reductions. Therefore, the amount of CO_2 reduced by these measures are not included in the projections of the KLM's decarbonisation.

Regarding compensation, we will still look for ways (on top of the compensation programs we are already offering) to go further by making investments outside the scope of our climate targets to help mitigate climate change elsewhere. We are committed to reducing our value chain emissions before investing to mitigate emissions outside our value chain. An exemption is the capturing and permanently storing of carbon. This new technology can neutralize unabated emissions once long-term science-based targets are achieved to reach net-zero.

II. Target projections

In the following section we explain the relative target and the absolute projection of the CO_2 emissions of the KLM group. The SBTi did not yet validate the targets presented; however, when we use their calculations, our WTW emissions ppkm require a reduction of 30% in 2030 compared to 2019. This translates into an absolute reduction of 12% in 2030 compared to 2019.

Intensity target

The graph below (figure 7) shows that our intensity pathway, which is based on our Well-to-Wake emissions per passenger-kilometre has to go down from 87 gCO_2 ppkm in 2019, to 62.5 gCO_2 ppkm in 2030. This is equivalent to an intensity target of -30% in 2030 compared to 2019. The SBTi sector guideline uses Revenue Ton Kilometre (RTK) for calculations instead of ppkm. However, to be in line with most other airlines and for communication purposes, ppkm is used. The rule of thumb in this translation process is dividing RTK by 10, as it is assumed industry-wide that one passenger with luggage equals 100kg. Thus, the numbers presented have been translated into ppkm from the RTK numbers resulting from the SBTi aviation tool.

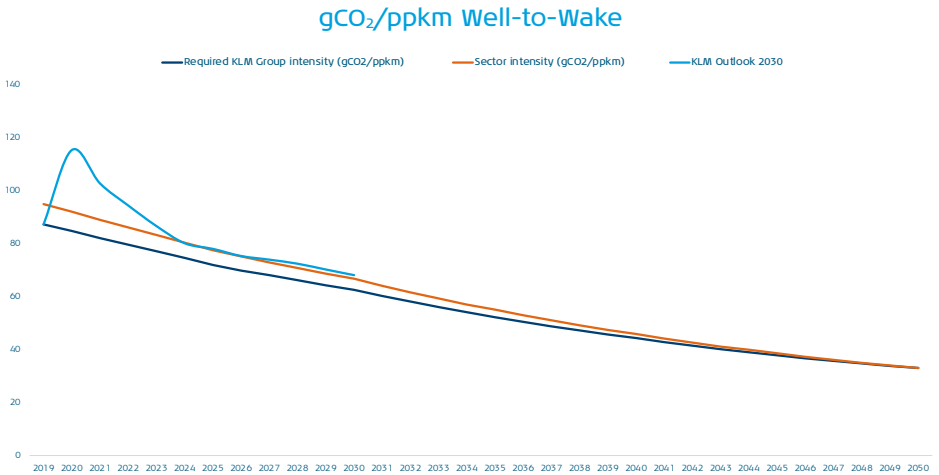


Figure 7. "Intensity pathway SBT incl. required KLM intensity, sector intensity and KLM outlook."

In the graph we see the sector intensity pathway, the required KLM group pathway, and our KLM outlook towards 2030. This shows that KLM's SBTi intensity target requires more reduction than our previous target and actions to achieve ~62.5 gram in 2030. KLM will work towards the 2030 SBTi target, to be able to follow the SBTi path towards 2050 from this intermediate point.

The KLM outlook is based on the following underlying assumptions:

- Our 10-year network plan. This includes:
  - ◇ Fleet renewal plan (for example introduction A320/A321);
  - ◇ A KLM compound annual growth rate (CAGR) of 1,95% (SBTi is working with an industry CAGR of 2.9%). Our CGAR is based on the Available Seat/Ton Kilometres until 2030 based on analysis of our network projections and fleet development;
  - ◇ Operational efficiency of 0,1% (for example fuel savings by flying optimized routes).
- The use of SAF in line with our ambition in the Clean Skies for Tomorrow (CST) coalition to use 10% SAF worldwide.
- Our WTW emissions are based on our TTW emissions using the factors in the table below (table 3).

TTW Emissions Factor	71.5 gCO_2/MJ
WTW Emissions Factor	89.7 gCO_2/MJ

Table 3. "Tank-to-Wake vs. Well-to-Wake Emissions Factor based on SBT research."[13]

Absolute CO_2 reduction projection

Although the SBTi does not require an absolute target for aviation, we have derived an absolute reduction projection for 2030, which will be considered separate from the intensity target. This is in line with previous targets and was chosen to calculate because only an absolute reduction will truly reduce our CO_2 emissions. Based on our own calculations using the SBTi method, we need to reduce 12% of our absolute emissions in 2030 compared to 2019 (our previous target was set for a reduction of 15% compared to 2005). As stated before, as the reduction now covers scope 1 & 3 emissions in 2019, the starting point in CO_2 is more than only scope 1 emissions in 2005. However, when translating the -12% projection to our previous absolute reduction ambition, approximately the same total CO_2 emission amount is aimed for.

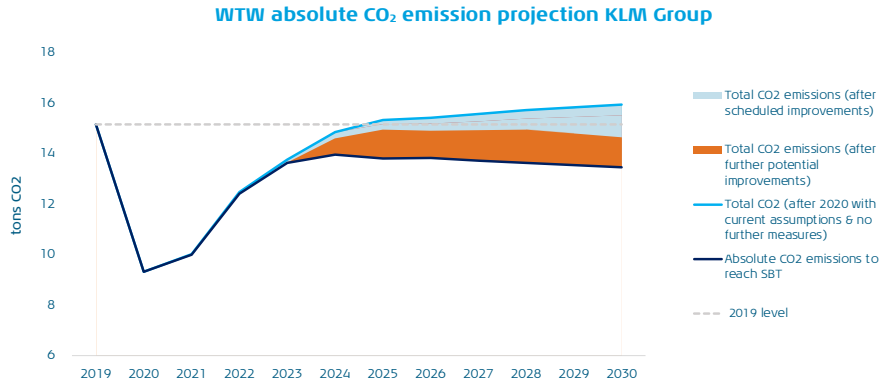


Figure 8. "Absolute CO_2 emission (WTW) projection KLM group SBT."

The graph in figure 8 shows the absolute emissions of the KLM group from 2019 until 2030 for scope 1 & 3. From 2020 we have used the same underlying assumptions as for the intensity target. The graph shows that our renewed projection in line with our SBTi decarbonisation pathway requires additional CO_2 reduction to meet the SBTi goals, similar to what is portrayed in the first half of the intensity pathway in graph 7. This means that new measures need to be investigated and implemented on top of our current activities.

[13] SBTi tool Aviation, 2021.

III. Working towards 2030

Both outlooks (intensity & absolute) presented above show that because our ambitions are now in line with climate science through our SBTi commitment, our current implemented and planned activities are not enough to reach 2030. Thus, additional decarbonisation activities are necessary. In this section our current activities are described, as well as what other potential activities can be analysed and implemented towards 2030. It should be noted that all measures interact with each other, hence if one increases or decreases this could impact the availability of one of the other measures as they depend on each other. As a result, this is a somewhat iterative process.

A. FLEET MODERNISATION

Current activities

The most impactful way to reduce the carbon footprint is to invest in a more fuel-efficient fleet. KLM focuses on simplification and rationalisation to make the fleet more competitive while its transformation is being pursued with the arrival of more modern, high-performance aircraft with a significantly lower environmental impact. The Covid-19 pandemic has accelerated the phase-out of the most-polluting aircraft, which are the least adapted to the environmental route map, which is the Boeing 747 for KLM passenger business. In 2021, KLM added the first of 25 new Embraer 195-E2 aircraft to its fleet. This aircraft emits 31% less CO_2 per passenger than its predecessor.

In 2019, TU Delft and KLM announced the start of the design of the Flying-V aircraft. The Flying-V is a design for a very-energy-efficient long-haul aircraft. The improved aerodynamic shape and reduced weight of the aircraft will reduce fuel consumption by 20% compared to today's most advanced aircraft. After extensive wind tunnel and ground tests, the first successful test flight with a scale model of the Flying-V took place in 2020.

In addition, KLM actively participates in the Advisory Council for Aviation Research and Innovation in Europe, which advises the European Commission on a broad range of aviation related topics and play an important role in decarbonising aviation. Sustainable aviation, and under this the development of aircrafts, is one of their key issues.

Potential activities

Electric, hydrogen, aerodynamic breakthroughs will take place for the regional and medium haul fleet between 2030 and 2040 at the earliest. For the long-haul fleet, where most CO_2 emissions are, this is expected to become a reality after 2040. In our current projections we already included our latest fleet plans and introduction of our new aircraft. Nevertheless, KLM's fleet choices offer opportunities to further reduce CO_2 emissions.

Although most fleet choices for 2030 have already been made, the following options are still subject to further analysis during the next phase of our SBTi timeline:

- Regional: Accelerated introduction of the E2 at KLC replacing the B737-700;
- Medium haul: Accelerated replacement of the MH fleet;
- Long-haul: Accelerated replacement of the B777-200 and A330-200;
- Cargo: full freighter 747-400 BCF replacement.

B. OPERATIONAL MEASURES

Current activities

KLM is actively seeking new ways to achieve weight reduction, because the lighter the aircraft, the less fuel it consumes. All the divisions of KLM are working to reduce weight on-board. This includes, for example, reducing the weight of seats, galley and service equipment, products such as paper documentation for cargo and flight decks, magazines and the loading of drinking water.

All possible avenues of fuel-savings are identified and, when feasible, implemented, subject to strict respect of the rules on Flight Safety. Improvements in fuel efficiency are achieved through the optimization of routes, flight paths and altitudes, and a reduction in aircraft waiting times. KLM is proactively involved in the SESAR program, which contributes to the targets of the Single European Sky (SES) for the better management of air traffic.

Likewise, flight operations optimization is important for improvements in fuel efficiency. Pilots apply, when possible, the most-fuel-efficient procedures: Flight Plan precision, speed adjustments and optimized trajectories, and, on the ground, sustainable taxiing operations. New efficient tools based on artificial intelligence are being implemented, in partnership with innovative start-ups.

In 2020, KLM took advantage of the decline in activity linked to the Covid-19 public health crisis to appoint an energy efficiency team composed of pilots. This team conducted research into other fuel efficiency initiatives and established a plan to involve the pilot community. KLM data scientists also participated in a sustainable development hackathon focused on energy efficiency. This project is still in the midst of its process.

Potential activities

Most operational measures have already began its implementation phases but need to be accelerated. The following options will be analysed for the coming years:

- Optimising flightpaths to save fuel;
- Allocating fuel-efficient aircraft to specific routes;
- Effectivity of single engine taxiing;
- Electric taxiing;
- Implementing weight reduction measures;
- Optimise engine washes;
- Lower speed flying on certain routes.

KLM is dependent on the design of the airspace, as we are bound by instructions with regards to how and where to fly, limiting options to fly the most fuel-efficient routes. The government is talking about redesigning the Dutch airspace, which influences KLM's emissions. The redesign of the Dutch airspace is expected to be completed in 2024, which should lead to optimized routing and less fuel consumption and accompanying emissions, as well as other effects including noise pollution. Additionally, if SES is managed to be implemented before 2030, this can a have a very significant potential CO_2 reduction potential for not only KLM, but all EU airlines. For this we are dependent on EU policymakers, and we hope that action towards implementing SES will occur rapidly.

C. SUSTAINABLE AVIATION FUELS

Current activities

SAF will be key to supporting KLM's energy transition. By mobilizing the eco-system, KLM has established innovative partnerships with corporate clients, suppliers, airports and logistics partners. Furthermore, as part of its WWF-Netherlands partnership and Green Deal commitment, in 2012 KLM launched the KLM Corporate BioFuel program, a first for aviation. Furthermore, in 2022 KLM voluntarily announced to start blending 0.5% SAF for flights departing from Amsterdam. Lastly, in since the start of 2021 cargo customers can also aid the development and production of SAF through the Air France-KLM-Martinair Cargo SAF Program. Customers can now buy SAF for their loads in the cargo flights.

Sustainability of SAF

KLM is exacting when it comes to the sustainability criteria of the SAF it uses requiring, for example, a substantial reduction in CO_2 emissions, a minimal impact on biodiversity, no competition with food production or access to food resources, and a positive impact on local development. KLM has been a member of a sustainable certification body, the Roundtable on Sustainable Biomaterials, since 2008, in their capacity as

founder members of the Sustainable Aviation Fuel Users Group. This body considers 12 criteria ranging from food security to rural development, the quality of air, soil and water resources, and waste management. Lastly, KLM only purchases SAF that has a reduction potential of at least 75%.

Innovating in the supply chain

KLM is one of the founders of SkyNRG, the worldwide market leader for SAF. Since 2016, all KLM flights from Los Angeles airport have been operated with SAF produced by the local World Energy (former AltAir Fuels) refinery and supplied by SkyNRG. Additionally, KLM has purchased SAF for flights out of Amsterdam Airport Schiphol. This sustainable fuel produced by Neste from used cooking oil will bridge the gap until the coming on stream of the SAF production plant.

In 2019, SkyNRG announced the construction of Europe's first dedicated plant for the production of SAF in Delfzijl (the Netherlands), and KLM, as launching customer of the plant, committed to purchasing 75,000 tons of SAF annually, representing 75% of the plant's production capacity. The construction of this facility, which is scheduled to open in 2025/26, is a step towards fulfilling KLM's sustainability ambitions.

Stimulating the industry

KLM takes part in working groups and supports research projects aimed at the creation of a SAF market. For example, in 2020, KLM continued to purchase 15,642 litres of SAF for its Växjö (Sweden) flights, i.e. 5% of the total fuel use on all flights to/from this destination. Together with Södra and the City of Växjö, KLM and SkyNRG are investigating the feasibility of producing SAF locally.

KLM is actively participating in the Sustainable Aviation Roundtable, including the working group on sustainable fuels. This Roundtable is a collaboration between the Dutch Government, several private parties and knowledge institutes sharing the same ambition of launching sustainable aviation fuel production in the Netherlands.

Lastly, KLM forms part of the CST coalition, which was established within the World Economic Forum to ensure adequate supplies of SAF so as to be able to fly CO_2-neutral by the middle of this century. As shown in the targets, international aviation, and thus also KLM, aims to achieve a worldwide SAF proportion of 10% in 2030[14].

Potential activities

In order to reach our goals, we need to go beyond our current commitments. We already made a commitment of 10% worldwide, however we realise that this may be not enough. Therefore, the options to be evaluated are whether more SAF can be purchased, or whether SAF with a higher sustainability level than 75% is opted for. The latter significantly impacts the reduction potential of SAF.

Although the blending obligation in the 'Fit for 55' proposals will already help the market to mature, we need to push the boundaries of the market and go beyond the limits that we see to source the percentage of SAF that we need. The following actions will be carried out in the coming years.

- We will continue with strategic partnerships with suppliers with limited financial investments from KLM.
- We will create momentum in the market by acquiring substantial quantities of SAF, improving our position in the market ahead of mandates and proactively helping to reduce scarcity in the market.
- We sign long term SAF purchase agreements with different suppliers and mix of technologies.
- We ensure that we are well positioned for potential new partnerships based on: other/new SAF technologies such as ATJ, GFT, PTL and others.

[14] World Economic Forum, 2021.

D. NETWERK CHOICES

Our network choices can have an immense impact on our targets. Optimising our network will lead to a lower gCO_2 ppkm and help reach our intensity target. Potential actions that work towards this are choices about certain destinations, increasing our load factor, implementing intermediate destinations, and fuel stops. However, we are currently investigating the impact of potential network scenarios on our CO_2 emissions, and which actions can possibly be taken towards 2030.

IV. Next steps

We acknowledge that at this moment in time there are a series of steps still to be taken in the SBT process and that therefore this plan is not complete yet. As portrayed in the SBT timeline for KLM below, the coming months are dedicated to determining additional future measures and associated investments. As a first, the mentioned SBT's of 30% and 12% need to be validated by the initiative. These numbers have been submitted end of March and we expect these to be validated by the end of the year. Our next steps based on our initial timeline, in the months April-December are when the process of translating the overarching CO_2 reduction targets into separate targets per division will commence. In this large-scale internal investigation, all departments will be brought together to map out how we are going to achieve the goals. This will entail 'dividing up' the amount of CO_2 that needs to be reduced amongst the different divisions within KLM based on the amount they emit and their potential to significantly reduce. This will allow the separate divisions to themselves develop fitting plans for the coming eight years up to 2030, specifically designed and implemented to achieve each reduction target. At the end of this process, foreseen in December, this document will be updated to include a specific interpretation of our actions and investments to close the gap.

In the previous section measures to be able to follow the tightened decarbonisation pathway towards our 2030 ambitions have already been addressed. These include different potential actions that need to be investigated thoroughly, which is part of a company-wide strategy. As said, there is not one measure that aviation can take to decarbonise. On top of this, all measures interact with each other, which makes this a constant iterative process, where reacting to changes is key. Thus, there will be a focus on exploring efficiency and reduction measures in the coming six months. Currently, already a trajectory is in place to make more effective network choices. Here we will evaluate on which flights the most efficient reduction can be achieved. Moreover, all options to update the determined fleet plan will be analysed, and the implementation of operational measures will be scaled up. SAF will continue to maintain a prominent role and has the option to be scaled up when necessary. Through this mix of measures we depend on, we will achieve our goal in 2030 in which each percentage counts. Finally, we continue to push into engaging in collaborations in the future, as partnerships are a key asset to achieve an even higher reduction.

Figure 9. "SBTi Timeline KLM Group."

V. Other activities (outside of SBTi scope)

A. VOLUNTARY CO_2 COMPENSATION

KLM offers our individual and corporate customers the opportunity to offset their CO_2 emissions on a voluntary basis, by making CO_2 emission calculators available to customers on the website. This calculates the average fuel consumption per passenger and per ton of cargo for each flight in the KLM network. These calculators are directly linked to an emission evaluation system, enabling passengers to offset the carbon emissions associated with their flight. Since a business class passenger takes up more space than economy class, since 2022 a cabin class split is included in the calculations to 'redivide' emissions. To ensure a correct approach and execution of these calculations, KPMG France performs a consistency review for KLM.

KLM's CO_2ZERO compensation service also enables passengers to offset their carbon emissions. Customer contributions are invested directly in a carbon-offsetting project in Panama certified by the Gold Standard for the Global Goals label that focuses on planting new trees, preserving existing forests and supporting the local community. In 2020, the number of journeys booked including a CO_2 compensation request declined owing to the reduction in activity and represented the purchase of 44,000 tons of carbon credits.

Although compensation does not affect our (direct) emissions, and do not contribute to the achievement of our target, it does offer customers the potential to contribute to carbon sequestration and ecosystem restoration.

B. GROUND ENERGY CONSUMPTION

Energy consumption in the ground operations, such as the fuel used by ground support equipment, gas for heating purposes and electricity for aircraft maintenance and tertiary activities, generates direct and indirect greenhouse gas emissions (scope 1 and scope 2).

In 2019, KLM set a target of carbon-neutral ground operations by 2030. In 2019, KLM took a major step towards the ambition by switching to green electricity. These initiatives have resulted in a CO_2 reduction of 50 per cent from ground operations compared to 2018.

2020 was the last year of KLM's third multi-year energy efficiency agreement with the Dutch Ministry of Economic Affairs, aimed at increasing energy efficiency by at least 2% a year. To comply with the energy efficiency directive that replaces this agreement from January 1, 2021, KLM has begun the process to obtain ISO5001 certification for its energy management system.

KLM has trialled electrical alternatives to the ground power units, and push back and towing equipment, of which now 64% has already been electrified. All this equipment is responsible for 72% of the CO_2 emissions from ground equipment, meaning electrification offers a promising path towards reducing direct emissions at the airport. Furthermore, support from the EU through project Tulips for green airports and the Dutch government can help accelerate this development.

C. MULTI MODALITIES

KLM is investing in air rail connections, as trains can be a more sustainable alternative to air travel up to 700 kilometres. In 2019, KLM decided to replace one of its five daily flights from Brussels to Amsterdam, which feeds passengers into the network, with capacity on the high-speed Thalys as of March 2020. KLM, Thalys and Dutch National Rail have developed a combined Air&Rail ticket, which will be marketed by the KLM website and travel agents. These partners will also work with Schiphol to improve baggage handling and other services, and there will be a special

Air&Rail check-in desk at the airport. Furthermore, at the end of 2020, five active players in this field, including KLM, have set an ambition to 'further improve the international train as an attractive alternative to aviation, on the six priority destinations Brussels, Paris, London, Düsseldorf, Frankfurt and Berlin[15]. The parties focus on a doubling the total number of international rail passengers in 2030 compared to 2019. The action agenda in which this goal is introduced includes an overview of general as well as specific action points for each of the involved parties.

D. INTERNAL CO_2 PRICING

Another mechanism recently implemented to close the gap to 2030 is internal carbon pricing. Carbon pricing is a market-based policy instrument that creates a financial incentive for polluters to reduce emissions by making emitters responsible for external costs of CO_2. EU ETS and CORSIA are examples of external CO_2 pricing mechanisms. Internal CO_2 pricing sets an internal price of carbon use in an organisation and is taken into account in decisions effecting CO_2 emissions. This promotes investments in low-carbon technologies and can help prepare institutions to operate under future climate policies and regulations, such as the EU ETS[16]. At the start of 2022 KLM implemented its own internal CO_2 price, which is currently set at €60 per tonne CO_2 and will be updated yearly.

VI. Outlook towards 2050

Committing to a near-term, validated target is important to us. We need to focus on reducing our negative emissions now, as this is the decade of action. We have near-term emissions targets and with our commitment to the SBTi we will soon have these targets validated. We also recognise the need for longer-term targets, in line with the Paris Agreement. IATA has recently announced its commitment to be Net Zero in 2050, and also ICAO is working on setting a 'Long-Term Aspirational Goal' in line with 1,5˚C for aviation. KLM supports these initiatives and is committed to Net Zero as well. However, we are convinced that a commitment to a self-proclaimed Net Zero target is not enough, and without intermediate goals a Net Zero pledge is merely a point in time. Therefore, we are exploring the Net Zero pathway of the SBTi, to have a validated goal in 2050 for ourselves. We also strive to be an influential voice towards ICAO to not only adopt a 'Long Term Aspirational Goal', but also set intermediate reduction targets in line with science to create a science-based decarbonisation pathway for the international aviation industry.

Technological developments

As presented in earlier chapter, technological developments regarding aircrafts will not have a large contribution to CO_2 reduction for 2030. The key technologies will be electric, electric-hybrid and hydrogen aircraft. These will start to be available for regional and short-haul services in the 2030s and 2040s. Aircraft manufacturers have also made commitments to contribute to the development of these technologies. Airbus for example has the ambition to develop the world's first zero-emission[17].

Alternative Fuels

The NLR conducted a study to the availability of SAF in the Netherlands13. This study shows that the amounts of sustainable aviation fuels being produced by 2050 from the bio-based feedstock's that will be available in the Netherlands can only meet a fraction of the anticipated fuel demand. If feedstock is imported from other European countries, there might be a possibility to meet demand if everything is allocated to aviation. The supply potential for synthetic kerosene, produced using CO_2 that has been recycled or captured from the atmosphere and renewable electricity, is larger and may be sufficient. However, that also depends heavily on the amount of excess renewable electricity allocated to the aviation sector, as shown in the figure below.

[15] Actie agenda treinenluchtvaart., 2020.
[16] Carbon Pricing Leadership Coalition, 2022.
[17] Airbus, 2022.

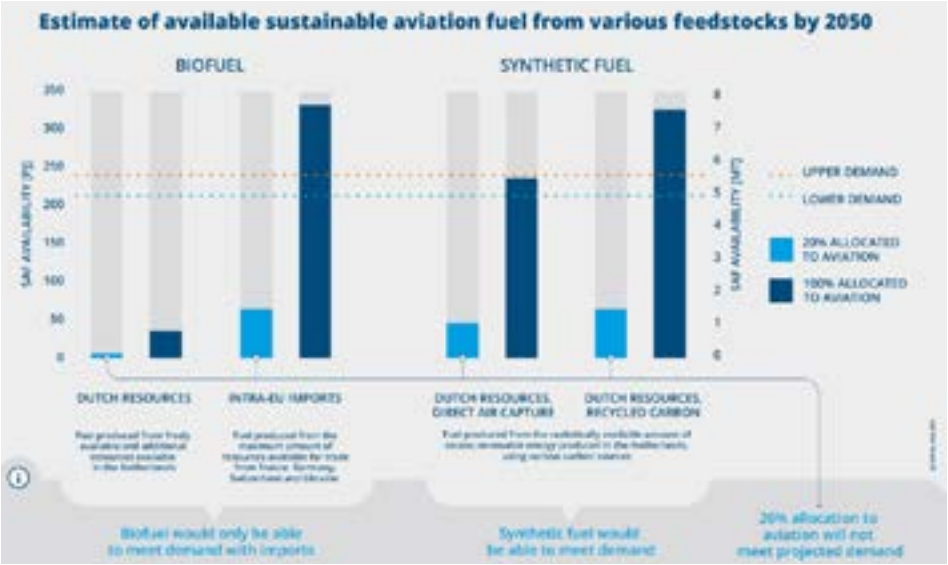


Figure 10. "Estimate of Sustainable Aviation Fuel from various feedstock's."[18]

Operational Efficiency

One of the most promising measures that would lead to operational efficiency is the so called Single European Sky (SES) initiative. The SES is a European Commission initiative that seeks to reform the European air traffic management system through a series of actions carried out in four different levels (institutional, operational, technological and control and supervision) with the aim of satisfying the needs of the European airspace in terms of capacity, safety, efficiency and environmental impact. Until now implementation of the SES has been unsuccessful. It is essential to realise a SES. As KLM we support the legislative proposal of the European Commission of September 2020. Through more efficient air traffic control and more direct flights, we can reduce CO_2 emissions from flights within Europe by as much as 10%. As an example, the flight from Zurich to Amsterdam can be 220 KM shorter. KLM wholeheartedly supports the call from the European Commission in the accompanying Fit for 55 Communication in which the Commission calls on the Council and the European Parliament to agree quickly on the updated SES regulatory framework, which is estimated to help cut aviation emissions by up to 10%[19].

[18] NLR, 2022.
[19] EC Communicatie 2021, p.8.

Our broader sustainability impact

Besides our CO_2 reduction ambitions, KLM is also actively engaged in enhancing other areas of sustainability.

Waste

KLM's operations generate roughly 15.500 tons of waste annually. Most waste is catering waste (±65%), waste from on-board cleaning (±10%) and waste derived from processes at Engineering & Maintenance (E&M) (±15%) and Cargo (±10%). Most non-separated waste concerns catering and cleaning waste. Waste at E&M and Cargo is mostly separated and recycled (74% and 86% respectively, for 2019). Most non-separated waste concerns catering (only 13% recycled) and on-board cleaning waste (only 10% recycled), as EU regulation does not allow the recycling of waste coming from outside Europe. Therefore, KLM has set the target to reduce non-hazardous non-separated waste by 50% in 2030 compared to 2011. In 2019 a reduction of 19% was already achieved.

All divisions where above-mentioned waste originate have drafted plans to reduce non-separated waste and increase recycling. For IFS & KCS, responsible for catering waste, reducing waste is top priority. KCS is developing new ways of recycling more waste and IFS is starting a project to improve monitoring of packaging in order to be able to work together with suppliers on reducing packaging. Furthermore, a working group on CAT1 – catering waste from non-EU flights – is trying to influence EU policy makers to revise regulation, as it is the major bottleneck for reaching the overall 2030 goal. For Ground Services, responsible for cleaning waste, a collaboration with PreZero (waste processor at Schiphol), Klüh and Asito (cleaning companies) has started to identify opportunities for further recycling, for which trials are still ongoing.

Last year a waste-reduction roadmap was developed together with key stakeholders of E&M and Cargo. Among actions on the roadmap are improving waste collection and identifying the composition of non-separated waste stream to pinpoint most effective future actions. Furthermore, Cargo is piloting several materials, which are lighter and better suited for recycling than the materials replaced. Also, an initiative to introduce a circular economy for some materials is in the early stages of development.

People

KLM strives to add economic and social value in the areas where it operates, around its hubs and destinations. By working together with local partners, we create new business opportunities and supports projects that contribute to future generations and local communities. Furthermore, KLM aims to empower employees to be 'the best of themselves' by creating an optimal, engaged, diverse and inclusive workforce that can execute the company's strategy and which acts in line with the KLM Compass.

KLM has developed People Sustainability Ambitions for 2030. By developing future ambitions for the sustainability strategy as a whole (people-planet-products & services), we are taking our societal role and responsibility in creating a better world for all. This people strategy addresses several focus points: staff engagement, diversity & inclusion,

human rights, community engagement. The specific ambitions per topic are presented below.

Staff Engagement	'Working at KLM means being engaged in an innovative network of people that value, empower and inspire each other.'
Diversity & Inclusion	'100% of our (potential) employees experience a diverse and inclusive working climate within KLM.'
Human Rights	'All of our employees act on KLM's commitment to human rights, with the result that KLM is known as an organization that sets an example in respecting and promoting human rights.' 'KLM has a sustainable collaboration with our worldwide supplier base, by working towards a transparent supply chain, advocating the promotion of human rights and making sure KLM is known as a company that respects human rights.'
Community Engagement	'By 2030, KLM is known as a company that is dedicated to creating societal value by sharing knowledge, collaborating with communities worldwide and inspiring others to do the same.'

Table 4. "People Sustainability Ambitions 2030."

Noise

Fleet modernisation and improved operational procedures are the two pillars of KLM's noise reduction strategy. All the aircrafts in the KLM fleet meet the criteria established by the ICAO Chapter 4 Noise Standard, the most exacting standard covering the acoustic quality of civil aircraft. Fleet renewal enabled a 67% reduction in KLM noise footprint between 2000 and 2020, whereas the number of aircraft movements increased by 46% over the same period.

Specific operational solutions are also sought to reduce the noise emissions from aircraft. Whenever possible, KLM implements continuous descent or NADP (Noise Abatement Departure Procedure) procedures which significantly reduce noise pollution. Furthermore, the SESAR program also aims to improve the management of noise and its impact through precision landing procedures using satellite navigation and optimised flight paths, including optimised climb and descent operations.

In 2020, KLM took part in the 'Minder Hinder' (less hindrance) program with Schiphol and Air Traffic Control the Netherlands to reduce noise hindrance and improve the quality of the local environment. KLM is committed to contributing to a 2% annual reduction in serious disruption around Schiphol airport. KLM will make a proportional reduction in its night flights from 32,000 to 25,000 at Schiphol in return for, amongst other conditions, an increase in the number of aircraft movements at Schiphol to 540,000, the opening of Lelystad airport and the development of rail replacement services for destinations like Brussels and Düsseldorf. In the Netherlands, KLM participates in 'Het Regioforum' which addresses issues surrounding noise with the local community.

Non-CO_2 effects

Whilst CO_2 remains the most commonly cited and arguably best-understood pollutant from aviation, its contribution to global effective radiative forcing (ERF) i.e., warming, is estimated to be only a fraction (~⅓) of the industry's total impact. Emerging research validates long-held beliefs that other pollutants from jet engines can cause further warming beyond the impact of carbon alone. For example, particulate matter has been linked with increased contrail-induced cirrus cloudiness and NOx emissions with net increased GHG formation. Despite the clear importance of these "non-CO_2 factors" on aviation-induced warming, the science underpinning these findings remains nascent and inconclusive. Furthermore, mitigation levers targeting these factors also remain untested, limiting the ability for individual companies to both measure the impacts and then take directed action. As a result, the SBTi pathway developed for KLM only covers CO_2 emissions and other Kyoto GHG's.

However, due to the largest impact of the total aviation climate impact comes from non-CO_2 emissions, KLM simultaneously wants to help reduce and mitigate contrail. Therefore, as knowledge is limited in this subject area, we want to support and work together with research facilities to identify most effective measures for mitigation. Moreover, several measures that have already proven to be effective can be implemented to reduce non-CO_2 emissions and contrails, among which there are operational and technical mitigation possibilities. In the first category fall options including flying at non-contrail sensitive times as well as areas to avoid ice supersaturated regions (ISSRs). Also, formation flying shows opportunities to mitigate contrail. Next, regarding technology, new fuel types can be used with reduced amounts of non-volatile Particulate Matter (nvPM), which also includes using SAF. KLM is already working together with knowledge institutions, contributing to research, and trying out ways to avoid contrails.